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<b>(21) International Application Number:</b> PCT/US99/04549  <b>(22) International Filing Date:</b> 2 March 1999 (02.03.99)  <b>(30) Priority Data:</b> 60/076,621      3 March 1998 (03.03.98)      US  <b>(71) Applicant (for all designated States except US):</b> ICAGEN, INC. [US/US]; Suite 460, 4222 Emperor Boulevard, Durham, NC 27703 (US).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> SILVIA, Chris [US/US]; 3105 Broomsedge Way, Durham, NC 27712 (US). YU, Weifeng [CN/US]; 107 Park York Lane, Apex, NC 27502 (US).  <b>(74) Agents:</b> PARENT, Annette, S. et al.; Townsend and Townsend and Crew LLP, 8th floor, Two Embarcadero Center, San Francisco, CA 94111-3834 (US).		<b>(81) Designated States:</b> AU, CA, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>Without international search report and to be republished          upon receipt of that report.</i>

**(54) Title:** ~~IDENTIFICATION AND EXPRESSION OF HUMAN KIR5.1~~ Nucleic Acid Encoding Human KIR5.1

**(57) Abstract**

The invention provides isolated nucleic acid and amino acid sequences of hKir5.1, antibodies to hKir5.1, methods of detecting hKir5.1, methods of screening for inward rectifier potassium channel activators and inhibitors using biologically active hKir5.1, and kits for screening for activators and inhibitors of inward rectifier potassium channels comprising hKir5.1.